

The opinion in support of the decision being entered
today was **not** written for publication and is **not**
binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT C. SUNDAHL and LAWRENCE A. BOOTH JR.

MAILED

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U.S. PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Appeal No. 2006-1930
Application No. 09/976,199
Technology Center 3600

ON BRIEF

Before LEVY, NAPPI and FETTING, **Administrative Patent Judges**.

NAPPI, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. §134(a) of the final rejection of claims 1, 3 through 11 and 13 through 19. For the reasons stated *infra* we affirm the examiner's rejection of these claims.

Invention

The invention relates to a system and method for to compensate for degradation of luminance of emissive displays. Claim 1 is representative of the invention and reproduced below:

1. A method for at least partially compensating luminance of an emissive, display comprising:

having a desired luminance, as a function of time, for one or more organic light emitting diodes (OLEDs) included in said emissive display;
estimating the amount of degradation of the OLEDs; and
utilizing, at least in part, the estimated amount of degradation, attempting to adjust (adjusting) the luminance of the OLEDs to the desired luminance.

References

The references relied upon by the examiner are:

Yamazaki	6,528,951	Mar. 04, 2003 (Jun. 12, 2001)
Shen	6,414,661	Jul. 02, 2002 (Jul. 05, 2000)
Kane	6,229,508	May 08, 2001 (Sep. 28, 1988)

Rejection at Issue

Claims 1, 3 through 7, 10, 11, and 13 through 18 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over Shen in view of Yamazaki. The examiner's rejection is set forth on pages 3 through 7 of the answer. Claims 8, 9, and 19 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over Shen in view of Yamazaki and Kane. The examiner's rejection is set forth on page 8 of the answer. Throughout the opinion we make reference to the briefs, the answer and the Office action for the respective details thereof.

Opinion

We have considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner in support of the rejections. We have likewise, reviewed and taken into consideration, in reaching our decision, appellants' arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

With full consideration being given to the subject matter on appeal, the examiner's rejection and the arguments of appellants and the examiner, and for the reasons stated *infra* we sustain the examiner's rejections of claims 1, 3 through 11, and 13 through 19 under 35 U.S.C. § 103(a).

Rejection of claims 1, 3 through 7, 10, 11, and 13 through 18.

Appellants argue, on page 11 of the brief, that: “It is respectfully asserted that neither Shen nor Yamazaki, either alone or in combination, suggests or describes attempting to adjust (adjusting) the luminance of the OLEDs to the desired luminance, which is a function of time.” (Emphasis original.) Specifically, appellants assert that the “claim refers to constant luminance temporally, as the one or more OLEDs degrades.” (Emphasis original.) Appellants argue that this is different than Shen’s device which is concerned with calibrating the display device to provide a uniform light output and is concerned with providing a uniform spatial light output. Appellants also assert that Shen does not teach or suggest adjusting the actual luminance to a desired luminance which is based on time. Appellants further argue, on page 12 of the brief, that Yamazaki does not address temporal degradation but rather degradation due to temperature, and as such the combination of the references do not teach the limitations of the claims.

The examiner responds on page 9 of the answer, stating that claim 1 does not recite the “desired luminance, which is a function of time” as argued by appellants but rather recites “having a desired luminance, as a function of time.” On page 9 of the answer, the examiner identifies several sections of Shen which discuss the temporal impact on luminance of the OLEDs. Further, on page 10 of the answer, the examiner states claim 1 does not recite “constant luminance temporally” as argued by appellants, and that while appellants’ specification may discuss such a feature, such a limitation is not read into the claims.

We concur with the examiner’s claim construction and findings relating to Shen. Claim 1 recites “having a desired luminance, as a function of time, for one or more organic light emitting diodes (OLEDs) included in said emissive display” and “utilizing, at least in part, the estimated amount of degradation, attempting to adjust the luminance of the OLEDs to the desired luminance.” Thus, claim 1 recites that there is a desired luminance which has a temporal component, and that this desired luminance is used in

some degree to adjust the luminance of the OLED. We note that terms “utilizing, at least in part” and “attempting” recite such a weak correlation between the desired luminance and the adjusted luminance to make the scope of the claim broad enough to encompass almost any correlation between the desired and adjusted luminance of the OLEDs. We concur with the examiner’s claim interpretation, and hold that there is no recited limitation which recites a constant luminance as argued by appellant. Further, we note that the claim does not contain a limitation which defines what the desired illumination represents, i.e., whether the desired luminance represents the maximum luminance produced by the OLED in display or whether the desired luminance represents the luminance desired as defined by the data used to create the image to be displayed. Thus, we consider the claim to be broad enough to encompass both types of desired luminance.

We find that there are numerous aspects of Shen which meet the claim limitation of “having a desired luminance, as a function of time.” The examiner discusses one aspect of Shen which meets this limitation on pages 9 and 10 of the answer. We further find that in column 5 lines 40 through 55, Shen discuss adjusting the voltage to produce the current to produce the desired brightness level of the pixel and that the current in the pixel to produce the desired brightness level is a function of present and prior history of the pixel (time pixel has been used). As discussed by appellants, Shen teaches adjusting the spatial brightness of the display in columns 9 and 10 and in the flow charts of figures 7 and 8. Shen teaches a system where groups of pixels (OLED) are compared to adjacent pixels and the brightness of the pixels are adjusted to equalize the brightness. See steps 75 through steps 79 of figure 7. Thus, the pixel brightness of the individual OLEDs vary over time and the value of the brightness of a first group of OLEDs becomes the desired value of luminance used to adjust the luminance of the adjacent OLEDs.

Further, inasmuch as the term “desired luminance” is also broad enough to encompass the desired illumination in response to the data defining the image to be displayed, we note that Shen also teaches that the OLEDs are used in a display and that some images may be displayed for a relatively long percentage of time compared to others. See column 8, line 45 through 49. Thus, Shen teaches that the data defining the image to be displayed creates a desired luminance and that the image data may change over time, which we consider to mean that the data defining desired luminance of the OLED is a function of time.

For the forgoing reasons we find ample evidence to support the examiner’s finding that Shen teaches “having a desired luminance, as a function of time, for one or more organic light emitting diodes (OLEDs) included in said emissive display” and “utilizing, at least in part, the estimated amount of degradation, attempting to adjust the luminance of the OLEDs to the desired luminance” as recited in claim 1. Appellants’ arguments have not convinced us of error in the examiner’s rejection. Accordingly, we sustain the examiner’s rejection of claim 1 under 35 U.S.C. § 103 (a) as being unpatentable over Shen in view of Yamazaki.

Appellants state on page 12 of the brief:

Claims 13 [sic, 3]-7, 10-11, and 13-18 either depend from and include the limitations of claim 1, or include a substantially similar and patentably distinct limitation as claim 1. Therefore, these claims patentably distinguish from the cited patents on the same basis as claim 1.

We do not consider this to be a separate argument, accordingly, we group claims 3 through 7, 10, 11 and 13 through 18 with claim 1 and sustain the examiner’s rejection of claims 3 through 7, 10, 11 and 13 through 18 for the reasons stated with respect to claim 1. See 37 C.F.R. § 1.41.37(C) (1) (vii).

Rejection of claims 8, 9 and 19.

Appellants assert on page 13 of the brief:

It is respectfully asserted that neither Shen Yamazaki, nor Kane, either alone or in combination, suggests or describes attempting to adjust (adjusting) the luminance of the OLEDs to the desired luminance, which is a function of time. See the discussion above, Therefore, even if the combination were proper, although Appellants believe that it is not, nonetheless, the combination would still fail to produce the invention as recited in the rejected claims. It is, therefore, respectfully requested that the rejection of this claim be withdrawn. (Emphasis original).

Appellants' arguments have not convinced us of error in the examiner's rejection. As discussed *supra*, we find that Shen teaches the desired luminance, which is a function of time. Accordingly, we sustain the examiner's rejection of claims 8, 9 and 19 under 35 U.S.C. § 103 (a) as being unpatentable over Shen in view of Yamazaki and Kane.

Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief or by filing a reply brief have not been considered and are deemed waived by appellants (see 37 CFR § 41.37(c)(vii)). Support for this has been demonstrated by our reviewing court in *In re Berger*, 279 F.3d 975, 984, 61 USPQ2d 1523, 1528-1529 (Fed. Cir. 2002) wherein the Federal Circuit stated that because the appellants did not contest the merits of the rejections in his brief to the Federal Circuit, the issue is waived. *See also In re Watts*, 354 F.3d 1362, 1368, 69 USPQ2d 1453, 1458 (Fed. Cir. 2004).

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Conclusion

In summary, we sustain the examiner's rejection of claims 1, 3 through 11 and 13 through 19 under 35 U.S.C. § 103(a). The decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

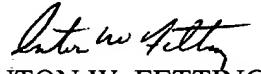
AFFIRMED


STUART S. LEVY
Administrative Patent Judge

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) BOARD OF PATENT
) APPEALS AND
) INTERFERENCES


ROBERT E. NAPPI
Administrative Patent Judge

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ANTON W. FETTING
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